

# THE MEDICAL EXAMINER,

## And Retrospect of the Medical Sciences.

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### A COURSE OF CLINICAL LECTURES,

Delivered at the *Hôtel Dieu, Paris*, for the Session  
1842-'43.

BY A. F. CHOMEL, M. D.

#### LECTURE IX.

In the resumé which I am about to present to you of the more interesting cases which we have had to treat in the course of the present year,—that is to say, from March, 1842, to March, 1843,—I shall accompany the rapid history of the several facts with some practical remarks which may be instructive to you. I shall commence with the cases of typhoid fever.

Since the 15th of March, 1842, to the month of March of the present year, we have had one hundred cases of typhoid fever. Out of this number twenty have died, or one-fifth. The mortality was much greater in winter than in summer. Out of seventy-two cases which occurred during the summer, only fourteen died. This is a result directly opposed to that which the statistics of pneumonia presents, where the mortality is proportionally much greater in summer than in winter, as we shall see hereafter.

There are in our wards twenty beds for men, and thirty-two for women, including twelve beds for convalescents. In spite of this disproportion, the cases of typhoid fever were much more numerous among the men than the women; for among the former there were fifty-nine, and forty-one among the second. As a general rule, women are much less subject to contract this affection than men. Out of these fifty-nine male patients fifteen succumbed; whilst of the forty-one women, only five died.

In recapitulating the cases of typhoid fever that we have had to treat in the course of the last eleven years, we can count five hundred and twelve. This *relevé* has enabled us to ascertain the mean age at which persons are attacked with typhoid fever to be from fifteen to twenty years. The mortality is one-sixth from twenty to thirty-five years. Typhoid fever rarely happens over the latter age. Out of the hundred cases which we have had during the past year, the disease was developed in thirty cases during the first year's residence in Paris. Of these thirty, three only died. It is observed, generally, however, that this fever is more frequently fatal among such, than those who are attacked at a later period. With regard to *duration*, the mean time has been, in general, about thirty days for the severe cases, and five days only for lighter cases. When the *invasion* is sudden the mortality is less, whilst, when the disease develops itself slowly after a long incubation, it is usually much more mortal. The appearance of the typhoid eruption is very frequent; indeed, it is, as you know, one of the characteristic signs of the disease. The *petechiæ*, very different from the hemorrhagic spots, with which they should not be confounded, are not a symptom of any gravity,

whilst the latter, on the contrary, indicate great danger. Two cases presented this symptom in the course of the year, and both of these died. Delirium, when violent, is also a symptom of much gravity. This symptom occurred in nine cases out of one hundred. A comatose state also is of equally bad augury. The same may be said of intestinal hemorrhage. In the preceding year hemorrhage from the bowels was the cause of death in one-half the patients that we lost. The same proportion, in this respect, has occurred the present year. The sloughs which occur sometimes over the sacrum, indicate also great danger; first, because they announce a general feebleness, or prostration of the forces, and finally, because they are ordinarily connected with paralysis of the bladder and rectum. The mortality in such cases is also about one-half. Perforation of the intestine has happened three times this year, and the patients died from a partial consecutive peritonitis. Perforation occurred in one case, a woman, on the eighteenth day of the disease; in another patient, it occurred just as he entered on convalescence; in the third, it happened on the twenty-first day. Although exceedingly grave, and generally mortal, it is not invariably fatal. When the perforation is small, and but a small quantity of matter escapes by the opening, the partial peritonitis which results may be cured.

*Complications.*—In one patient abscesses occurred, which terminated in death; another was attacked with erysipelas; and a third with pericarditis, equally fatal. Some cases were complicated with intense acute bronchitis. One woman had *phlegmasia alba dolens*. Eleven patients had the face injected; the pulse full and strong, with bleeding at the nose. These were all treated with antiphlogistics, and one only died. These cases were evidently those of the inflammatory fever of Pinel. In four cases the nervous phenomena predominated over the others; in these there was subsultus, &c. This ataxic form is, as you know, one of the most fatal of the disease; three out of the four died. Three others presented an adynamic form, and some a mixed type—ataxo-adynamic. All these cases were of the gravest nature. Of the remaining sixty-six cases, of which thirty-six were light, there was nothing of particular interest.

*Treatment.*—With regard to the treatment of typhoid fever, which I can only touch upon, I cannot abstain from remarking what I have said so frequently before—that it is very difficult to appreciate in a just and true manner by the treatment, the action of the different remedies that we have employed, and that we still employ in the treatment of this affection. I have myself experimented largely with different remedies, more particularly with carbonic acid and the chlorides. The first results were in both cases equally happy and satisfactory; beyond, indeed, our hopes, so that we commenced hoping that we had at last found efficacious means; but before long we were disabused; for reverses soon followed to balance our successes, and we finished by being convinced that these agents could have a cer-

tain favourable influence according to circumstances, but that they were by no means heroic. I believe that the same results followed trials made in other hands. You must not lose sight of the fact that we have reference to a disease of the gravest nature, which, whatever some physicians may say, has existed from time immemorial, and upon which any number of therapeutic essays have been made, by each school, and by each man who entertained any preconceived notions of the nature or elements of the disease. The ancients, regarding the foetid nature of the discharges which occur in typhoid fever, used means which were calculated, according to them, to modify the putridity of the disease—and they accordingly purged freely. More recently, the physicians of the last century, believing that there was some peculiar bilious element, gave emeto-cathartics; thus Tissot employed this medication in the epidemic at Lausanne, which he called bilious fever, but which was evidently nothing else but the typhoid affection, with predominance of the bilious element. With this treatment that distinguished physician obtained great success; however, as there reigned at this time an epidemic in Switzerland, and you know that the success which certain medicines obtain in epidemic affections do not realize expectations always in the same diseases, when sporadic; so that the treatment of Tissot was soon abandoned. At a period still more remote, when the chemical doctrines were high in favour, all the vital actions of the economy were considered as mere chemical phenomena; and an attempt was made to apply these notions in the practice of medicine. With this hypothesis, they believed that putridity was the chief element in typhoid fever, and substances were sought for to neutralize this putridity. In consequence of this idea, recourse was had to camphor, and other remedies supposed to be antiseptic. Success attended sometimes this practice, but failure was also very common; the insufficiency of the remedy was acknowledged, and it was abandoned along with the others, and new ones were sought for. To these humoral and chemical schools succeeded that of Pinel, who gave to the disease that we now call typhoid fever, the name of adynamic fever; and in conformity to the idea of this designation, he proposed the use of tonics. It should be mentioned that Pinel practised at this time at Bicêtre, and saw this disease accompanied by so much prostration and feebleness, that he was in some measure authorised in considering it as an asthenic affection, and giving to it the name of adynamic fever. Besides, the description which he has left leaves no doubt upon the nature of the disease he so denominated—typhoid fever of a very low type, such as we frequently meet with in old persons. This modification in the pathological ideas, necessarily caused some modification in the therapeutic notions, and all those physicians who followed his principles adopted his practice, and gave tonics. It should be stated that the tonics employed by Pinel were not of the most energetic character; they were mild and unirritating in their nature, so that, in reality, he did not treat typhoid fever very differently from the other physicians of his period. At this time great hygienic improvements were introduced into the hospitals. Patients who before slept two in a bed, now had a single bed appropriated to each, and much greater cleanliness was observed. This caused general amelioration in all the low forms of disease.

At the very moment when the school of Pinel was in the zenith of its glory, Broussais appeared, who, adopting an entirely different doctrine, attacked the

medical and therapeutical system of Pinel, and substituted for the name of adynamic fever, that of gastro-enteritis, looking upon that as a mere inflammation of the gastro-intestinal tube, which his predecessors had considered a complex morbid state of the system.

He inveighed with great force against the use of tonics, and admitted in the treatment of this affection the antiphlogistic remedies alone. This doctrine prevailed, in its turn, for some time, and the system of bloodletting was pushed so far that we have seen some of its unfortunate victims expiring with their bodies covered with leeches. Bloodletting had become a general rule in almost all diseases. But this system, at variance with the most generally received principles of sound therapeutics, could not last long; it fell through at the appearance of a more sound and prudent system: and the former system ought, by all means, to be banished in the treatment of a disease such as typhus fever, which assumes divers forms, presenting themselves with very different modifications, the treatment of which must consequently vary very much.

There are remedies which we can employ without any danger in typhoid fever, such as carbonic acid and the chlorides, at the same time that we have recourse to a rational treatment; for there exists in these diseases a deleterious principle, against which we must strive to contend by specific remedies.

The rational treatment consists in hygienic remedies and medicinal remedies, properly so called. The first may be very advantageous when properly directed; thus cleanliness alone may be extremely beneficial. It suffices to have seen the patients in the hospitals, before the reform which has since been made in these establishments, to be convinced of the happy influence of good hygienic measures.

The influence of the hygienic remedies is immense in all diseases, and principally in that of which we are now treating. To the ordinary hygienic precautions, we must also add the moral ones, the removal of everything tending to disturb or disquiet the patient, the consolations which friendship or even mere humanity may procure, etc. These have a very great influence, also, on the happy issue of the disease. The advantages derived from them appear to us so great, that it would, perhaps, be better for the patient to be deprived of the therapeutical remedies, than to want the proper hygienic care and suitable moral resources. We therefore place them first; they are, moreover, remedies which are always suitable, and which may be applied in all the different forms of the disease.

The medicinal remedies constitute, or ought to constitute, the rational system of medicine which we must follow in all diseases, modifying it according to circumstances, and according to the different forms which diseases assume. To wish to adopt one uniform system in almost all diseases, admitting even that they have a phlogistic state of the system as a base, as, for example, measles, scarlatina, &c., would be a grievous error; for many divers systems may present themselves in the course of these diseases, which, however inflammatory they may really be, are symptoms, nevertheless, which will oblige us to modify our treatment, without even taking into consideration the variations respecting individuals, age, climate, or a number of other circumstances. How can we imagine that there should be but one method for treating all these? This is, nevertheless, the opinion of some physicians, who absorbed by the idea of inflammation, rely entirely on the efficacy of bloodletting and antiphlogistic remedies.

The skilled practitioner, also, will never adopt a general and absolute formula, for he will find himself under the necessity of changing his formulæ every instant. To impress more forcibly the value of this precept, it will suffice to glance at the variety and multiplicity of forms assumed by typhoid fever.

Typhoid fever presents itself often with all the symptoms indicating inflammation; the pulse is full and frequent; great heat of skin; the face is of a dusky hue; stupor; the eyes glazed, etc. We have present what the ancients termed inflammatory fever, synocha. In this case, the antiphlogistic remedies are indicated without doubt, and they will have to be repeated according to circumstances. This is the inflammatory form which typhoid fever sometimes assumes, and in which, I repeat it, there is every indication for the antiphlogistic remedies, especially in the first stage, when the strength of the patient has not yet been prostrated; for this is a circumstance demanding a great deal of attention. We are not sufficiently authorised to employ this treatment because the disease has presented some symptoms of inflammation, if, on the other hand, the morbid state of the system has lasted several days, and if the patient evinces already a considerable prostration; we must then abstain from bloodletting, and confine ourselves to remedies indirectly antiphlogistic and less active.

In other cases, this affection is accompanied, from the very onset, by bilious symptoms; the mouth has a bad appearance; tongue covered with a yellowish coat; bilious vomitings; the face has an icteric tint. This is again one of the particular forms of typhoid fever, that which Tissot treated very successfully by purgatives. This is a case where we may have recourse to emetics, emeto-cathartics, and to acidulated drinks. At other times it assumes the adynamic form. The adynamic symptoms are of two kinds, each requiring a different treatment. Thus we can have weakness, with all the signs of the greatest vital depression; the skin is below the normal temperature; the pulse is feeble and very slow; stools involuntary; the patient is in a state of stupor, almost unconscious of what is transacting around him. In such a case we must employ the tonics in large doses; we must raise his strength at all hazards, and save his life. To accomplish this, we may give him the wine of bark or Madeira wine, in divided doses, frequently repeated; I have thus prescribed as much as half of a bottle a day with the greatest success. I have, by these means, snatched from the grave a young girl, who was cold, in a state of the most extreme prostration, and who, in a word, appeared to be breathing her last. We gave her tonics in divided doses, gradually increasing. In a few days she regained her strength, her pulse grew stronger, and gradually she recovered. Tonics, then, are very beneficial in such cases. If, on the contrary, notwithstanding the apparent state of prostration, the pulse retains a certain force, and if the heat be great, tonics will not have the great efficacy they possessed in the preceding case; they may raise, for a few minutes, the patient's sinking strength, they may afford a momentary increase of vitality, but the disease will still go on, and its progress will sometimes be the more rapid; so that it is more prudent in doubtful cases to abstain from powerful tonics, for fear of aggravating the disease.

The ataxic form which typhoid fever assumes, is one of the most serious and most fatal. When there is much nervous disturbance, and the intellectual faculties greatly involved—when the memory fails, stupor supervenes, coma, and subsultus tendinum, there is great danger. The patients thus affected

often sink on the ninth or tenth day, and the resources of art prove generally completely ineffectual in this condition of things.

If, in the case just mentioned, a sufficiently active febrile reaction supervenes, there would be indications for bloodletting; often with the assistance of this last remedy all the nervous phenomena are very much improved.

In some cases the ataxic form is accompanied by the adynamic; we have, then, what are termed the ataxo-adynamic symptoms, and the tonics, prudently administered, may be very beneficial; but, unfortunately, these rarely succeed in such cases.

We have, finally, mixed nervous forms, where we are obliged to employ an entirely empirical treatment, and to use the different antispasmodic remedies. The use of the baths sometimes causes a very great improvement of the nervous symptoms; musk and castor may also prove beneficial, but their action is uncertain; and we never feel confident that the changes following the administration of these remedies result from the action of the remedies themselves, there is so great an irregularity in the progress of the disease. The same remedy which appears to have been useful in one case, does not act, or acts injuriously in another, if we judge of it by its effects. The application of remedies in this form of the disease is very difficult.

This ataxo-adynamic form is really a desperate one for physicians, and often a fatal one for the patients.

The baths, as I have already mentioned, and the application of cold water to the head may afford some relief; but when the danger is very great we are authorised to try everything, even those remedies whose action is most uncertain, conformably to the axiom: *Melius anceps quam nullum*. It is, for instance, in a case of this kind that we may employ the musk. I have seen some very happy effects produced by this medicine, especially on a child who was in a profound coma, with stiffness of the limbs, resembling that of tetanus, whose life was despaired of, and who was cured under the use of this medicine. But its action is always empirical, and we must always consider it as such, and never pretend to anticipate its effects, at least with any degree of certainty.

Paris, March, 1843.

#### CASE OF TYPHOID FEVER, (DOTHINENTERITIS,)

*In which the first sound of the heart was scarcely audible—Death—Autopsy—With Remarks.*

By C. W. PENNOCK, M. D.

To the Editor of the Medical Examiner.

SIR,—During the summer of 1842, many of the cases of typhoid fever in the Philadelphia Hospital, Blockley, presented symptoms of unusual prostration, with very slight eruption of dark coloured spots, the colour of which resembled that of typhus, rather than that of dothinenteritis. The type of the fever in these cases, although not decidedly intermittent, approximated more to that form than usual in typhoid fever, and quinine was administered with great advantage. There was one peculiarity in the disease which very strongly arrested our attention; it was the modification of the systolic, or first sound of the heart. When heard, it was in every case extremely feeble;

in many instances it was extinct. The annexed case, which was one of the first received in the wards, is selected, inasmuch as it proved fatal; and is especially interesting as exemplifying the pathological condition of the heart. The notes have been communicated to me by my friend Dr. H. SELDEN, who was Resident Physician at the Hospital at the time of the occurrence of the disease; and this communication is sent you, in the hope that it may direct attention specially to the physical signs presented by the central organ of the circulation in cases of dothi-enteritis.

Yours, very truly,  
C. W. PENNOCK.

Hugh Brown, æt. 28, entered the ward on the 23d of July, 1842. A large, muscular, well-made man. He is a native of Ireland, but has been employed for the past seven years in this country as a weaver. His general health was always good, with the exception of an attack of rheumatism, which occurred several years ago, and from which he recovered perfectly.

The present attack commenced on the first of this month, (July.) After having gone to bed as well as usual, he was seized with a chill, and pain in his limbs, which were followed by fever and sweating, with pain in breast—principally the præcordial region—palpitation and dyspnœa, nausea, with occasional vomiting, and pain in the back of the neck. In a day or two cough commenced, with serous expectoration. About this time there was slight delirium. Although the breathing became less difficult, the continuance of the other symptoms obliged him to enter the hospital. He has had no regular treatment, but took purges of senna and manna, which produced diarrhœa.

At the time of his entrance he had some fever, cough, and dyspnœa; pulse feeble, quick, and frequent. Dulness upon percussion over præcordial region, of not more than its usual extent; first sound of heart scarcely audible; second distinct, but not loud; impulsion feeble, and sounds distant.

No further note of the case was made till the 26th. In the mean time he had seven cut cups at one time, and six at another, applied over præcordia. Has been taking infusion of ipecac., and had a dose of oil. A blister has been applied over præcordia.

To-day, (July 26), feels about the same. No head-ach or other pain, except along the sternum when he coughs; slept badly; a little delirious during the night. Has had five stools during past twenty-four hours, thin, yellowish, and watery. Some stupor to-day and restlessness, with slight subsultus. Memory imperfect; slow in answering questions; hearing impaired; skin of a dusky tint, moist and pleasant temperature; perspiration on face considerable; countenance a little flushed; tongue red at tip, covered at root and base with a brownish fur; bitter taste in mouth; some nausea; conjunctiva slightly injected; abdomen somewhat tympanitic; no tenderness; neither sudamina nor spots. Percussion anteriorly on right side clear. Left, slight dulness from third ribs to nipple, elsewhere clear. Posteriorly moderate resonance, becomes dull towards inferior margin, more particularly on right side. Respiration loud anteriorly on both sides, and sonorous. Posteriorly feeble, particularly at lower portions of both lungs, where sonorous rhonchi, with occasional traces of mucous are heard.

*Heart.*—Impulsion not perceptible; both sounds feeble, first scarcely heard, (apparently a little roughened.)

Pulse small, feeble, but regular, 100.

Respiration high and irregular, 26.

R. Hyd. Chlo. Mit.  $\frac{1}{2}$ .

Ipecac. gr.  $\frac{1}{2}$ .

Pulv. Opii, gr. 1-6th.

q. h. secunde.

Spt. Æth. Nit. 3j.

q. h. secunde.

Other medicine discontinued.

27th. Slept well last night; no delirium; no cephalalgia; hearing about the same; skin of the body hot; that of extremities hot but moist; tongue as before, rather dry; great thirst; cough less frequent. Pulse feeble and quick, 104. Respiration not so high, irregular, about 28. Subsultus somewhat diminished.

*Heart.*—Impulse not felt; both sounds feeble; the first blowing, and scarcely heard, the second natural, save its feebleness. Percussion posteriorly, is flat on right side, from an inch above lower angle of scapula downwards, and anteriorly, as far as middle of axillary region. Respiration in this portion of lung is very feeble and bronchial. In left lung, respiration, though feeble, is stronger than that of right.

Four cut cups to lower part of right lung posteriorly.

Medicine continued.

28th. Intelligence about the same. Had some delirium during night, but slept tolerably well; hearing not improved; no cephalalgia; flush of face of duller colour; skin less warm; perspiration considerable; tongue dry, brown and red at edges. Pulse 116, small and feeble; subsultus diminished; a spasmodic action of lower jaw very frequent. Respiration imperfect, 36, with very little expansion of chest in the act; less cough; very little sputa. Abdomen supple, but seems to contain a good deal of gas. Had three stools during night.

Percussion less dull on right side posteriorly than yesterday; and respiration more vesicular, and louder.

Heart as yesterday.

Medicine continued.

29th. Slept very little; muttering delirium during night; more delirium this morning than was observed yesterday; subsultus diminished, but twitching about mouth very frequent; flush of face increased; much heat about forehead; heat of body less; perspiration considerable; sudamina in considerable number about neck and abdomen; conjunctiva injected; neither dilatation nor contraction of pupils; tongue moist, cleaning at tip; slight pyralism. Pulse rather fuller, still very feeble, 120. Respiration irregular, 40. Some abdominal tenderness. Stools of good colour, but thin; water has not passed freely, (eight oz. of a reddish colour drawn off;) abdomen tympanitic.

No change in physical signs.

Medicine discontinued.

30th. The stimulants administered yesterday producing little effect they were discontinued, and eight grains of carb. of ammonia, and a drachm of Hoffman's anodyne were substituted. This to be given every two hours. A blister was applied to back of neck, which he tore off before it produced any effect upon the surface; was delirious through night, and slept none. To-day there is slight delirium, but great stupor; difficulty of speech; inability to protrude tongue; subsultus increased; face flushed as before; respiration slower, more expansive, but more

laboured and irregular; some tympanitis; a slight eruption, resembling that of typhus, observed on abdomen, principally confined to its left side; skin warm on body and extremities; considerable degree of perspiration on face and arms; tongue commencing to clean; no sordes on teeth; pulse more feeble, 140; conjunctival injection less; pupil changes rapidly from dilatation to contraction.

Ordered ten grains of carb. of ammonia, with a drachm of Hoffman's anodyne, to be given every alternate two hours, with ten minims of oil of turpentine, and three of oil of amber.

Evening.—About 6½ o'clock had an *immense* discharge from his bowels of thin, dark, bloody, fœtid matter, after which he became much more feeble. Perspiration over whole body. Stimulants were administered in large doses, sinapisms applied to abdomen and extremities, and hot spirits poured over body.

These measures failed to produce any reaction, and the patient died at 10½ o'clock, P. M.

#### *Secio-Cadaveris seventeen hours after death.*

Blood perfectly fluid, and ran from the nose in large quantities when the body was moved.

Lungs congested; soft at lower part posteriorly, principally on right lung; no induration of any portion of them.

Heart.—No effusion into pericardium, or other evidence of pericarditis; muscular structure of the organ of a pale red colour, softened and flabby; lining membrane softened, so as to be easily separated; in the muscular structure of the columnæ carneæ are numerous yellow points, which give a fawn colour to those portions; the whole internal parietes much stained by imbibition.

Stomach.—Mucous membrane slightly injected near the pylorus, and at posterior side; general softening of the whole mucous membrane.

Liver very pale; soft in right portion; gives a crackling sound under the knife. Left lobe not so pale or soft, and does not crackle under the knife; none of it congested; in the thickest portions there are globules of air, possibly from commencing putrefaction.

Spleen large, very soft, and congested.

Kidneys.—External surface mottled, and of a yellowish white colour; internally deep red, extending throughout cortical substance. Tubular portion natural. Left kidney much enlarged.

Mesenteric glands much enlarged.

Duodenum perfectly healthy in appearance, with some viscous congestion.

Jegunium healthy, and no enlargement of glands corresponding to those parts.

About two feet and a half above the illeo-colic valve the first of the *glands of Peyer* are found inflamed and ulcerated; they are much more so in proceeding downwards towards the cæcum. One gland, a few inches above the valve, is ulcerated through to the peritoneum, and is completely gangrenous. Ulceration is observed immediately at the valve.

Colon highly congested, and stained—of a blackish red colour; no ulceration observed; contains a great quantity of fluid blood of a very black colour.

Brain not examined.

#### *Remarks.*

The medical profession is indebted to Dr. STOKES, of Dublin, for first directing attention to the peculiar modification of the cardiac systolic sound in certain forms of typhoid fever. This very important feature

in the pathological symptoms of the disease, does not seem to have claimed much attention from the American physicians; at least, the writer is not aware of the existence of any cases of typhoid fever published by American practitioners, in which the peculiar cardiac symptom has been recorded.

In the treatment of this form of the disease, Dr. Stokes, with great reason, insists upon the expediency of the liberal use of wine and of tonics; a plan of practice which, in the cases in the Philadelphia Hospital, was attended with the happiest results. In some instances, where the first cardiac sound was entirely extinct, and the pulsations of the heart scarcely perceptible, under the influence of wine, tonics, and nourishing diet, the force of the central organ of the circulation increased, and with that its first sound was restored.

The case just reported is also interesting, as exemplifying the peculiar fluid and dissolved state of the blood, which is often seen in fevers of a low type.

#### BIBLIOGRAPHICAL NOTICES.

##### *Dissertation on the Diseases of the Maxillary Sinus.*

Read before the American Society of Dental Surgeons, at their Third Annual Meeting, held in Boston, July 20, 1842. By CHAPIN A. HARRIS, M. D., D. D. S. Professor of Practical Dentistry in the Baltimore College of Dental Surgery, &c. &c. Philadelphia: Lea & Blanchard. 1843. 8vo. pp. 165.

Dr. HARRIS tells us that in preparing the following memoir he has been "actuated by the belief, that a short, and, at the same time, comprehensive treatise on the morbid affections of this cavity, [the antrum,] would not be altogether unacceptable to the members of the dental profession." No work, devoted exclusively to these diseases, has before been published in our language; and the importance of the subject will be universally admitted, subject, as this structure is, to diseases of the most formidable and dangerous nature. Some of the affections of the antrum are, however, of a more benign character, and yield readily to treatment, especially if instituted in the early stage. But these simple affections frequently become malignant and untractable, if neglected or improperly treated.

"The form which the disease puts on, it must be admitted, is determined by the state of the constitutional health, or some specific tendency of the general system, and we can, therefore, readily imagine, that a cause which, in one person, would give rise to a simple inflammation of the lining membrane, or a mucous engorgement of the sinus, would, in another, produce an ill-conditioned ulcer, fungus hæmatodes, or osteo-sarcoma. But simple inflammation and mucous engorgement of this cavity, not unfrequently cause caries and exfoliations of its surrounding osseous tissues, and as a consequence in some instances, even the destruction of the life of the patient."—(*Introduction*, p. 11.)

Hence the importance of early attention to the disorders of this structure, which are not unfrequently of difficult diagnosis, and which, when much progress is made, if not incurable, become very tedious and troublesome.

"It may, therefore, be safely assumed, that in the very

large majority of the cases of disease of the maxillary sinus, the danger to be apprehended results more from neglect than any necessarily fatal character of the malady; so that, in forming a prognosis, the circumstances to be considered should be, the state of the constitutional health, the progress made by the affection, and the nature and extent of the injury inflicted by it upon the surrounding tissues."—(p. 11.)

The author treats of his subject under the following heads: I. Of Inflammation of the Lining Membrane. II. Of a Purulent Condition of its Secretions and Engorgement. III. Of Abscess. IV. Of Ulceration of the Lining Membrane. V. Of Caries, Necrosis, and Softening of its Bony Parietes. VI. Of Tumors of its Lining Membrane and Periosteum. VII. Of Exostoses of its Osseous Parietes. VIII. Of Wounds of its Parietes, and Foreign Bodies in it.

The work itself is evidently the result of much observation and study, and displays considerable research. Indeed, we think that the Dental Profession of the United States has abundant reason to be proud of the position it occupies. An excellent journal of Dental Science is published quarterly at Baltimore, under the auspices of the Society of Dental Surgeons, of which Dr. Harris is one of the Editors. This is combined with a reprint of the best foreign and domestic works on Dentistry. And several recent publications on this department of surgery, by American authors, show much science and skill.

*Quarterly Summary of the Transactions of the College of Physicians of Philadelphia. February, March, and April, 1843. 8vo. pp. 34.*

The present number of the Transactions contains the Annual Report on the Diseases of Women, by Dr. WARRINGTON; and the Annual Report on the Diseases of Children, by Dr. CONDIE. Dr. Warrington, in his report, has collected the various observations on his subject which have appeared in the periodical publications, and regrets that "he has been enabled to comprise so few facts of either a novel or particularly interesting character." The regret expressed with regard to the erroneous nature of the system of physical education of females, and the opinion that, until a rational improvement in this respect be effected, chlorosis will continue to prevail, will be generally shared by practitioners. The success of Electricity in Amenorrhœa, which Dr. Golding Bird, of Guy's Hospital, has obtained, is alluded to. In all these cases, if we recollect aright, the patients were subjected to a general treatment at the same time. It would not be difficult to assign the relative parts played by the exercise, regimen and tonics, and the electricity. Much interesting detail is presented with regard to the sore mouth peculiar to nursing women.

The paper of Dr. Condie contains a concise but full summary of the progress of the department confided to him, intermingled with many judicious observations.

M. PITSCHT, of Baden, asserts that he has cured incontinence of urine in patients of either sex by small doses of strychnine. To insure success, however, it is necessary that the bowels should be cleared before commencing the use of this remedy.—*London Lancet.*

## THE MEDICAL EXAMINER.

PHILADELPHIA, JUNE 10, 1843.

### HOMEOPATHIC LITERATURE.

"The Homeopathic Medical Library," is proposed to be "put to press as soon as a sufficient number of subscribers is obtained to warrant it." This fact we learn from a copy of the Prospectus and a specimen of the work now before us.

This undertaking is required on account of the "acknowledged imperfections of the text books now in use."

We notice this undertaking in hopes of showing the profession the kind of reasoning, and also some of the remarkable fallacies of the so-called Science of Homeopathy.

We are first told that all "diseases consist of a number of symptoms of greater or less extent, and constitute the affections presented to us in the *high sounding and classical, but deceptive language* of nosology; which conveys simple facts with a *high flourish of inflated learning*, to prevent the cognition of the uninitiated reader, in place of the plain unsophisticated language of true philosophy, more intelligible to the mind, and far more useful in practice." When stated in plain language, we presume the writer means to say, that medical authors of the Allopathic School purposely write so as not to be understood by the uninitiated reader. "*La raison de vos des raisons affaiblie tant ma raison que c'est ne pas sans raison que je me plain de votre beauté.*"

We are next told that medicines in the healthy body produce respectively, "the very groups of symptoms that are constantly observed in disease," and that any "physician whose mind has not been perverted by education" ("learning is a dangerous thing,") may be certain that "medicinal diseases or pathogenesis" and pathology "are intended for each other in the character of evil and remedy." "This fact, however," "would really seem to have escaped the notice of some of our most reputed authors in Homeopathic literature; for it appears to the Editors, that the *Materia Medica of JAHR*" "is a gross perversion" "of the text of HAHNEMANN."

Consequently, as the *Materia Medica of Jahr* is a gross perversion of Hahnemann, some of the best authors in Homeopathy have failed to discover that pathogenesis and pathology are intended for each other in the character of evil and remedy. This is certainly a remarkable deduction to be drawn from the dishonesty (alleged) of Jahr!

According to the Editors of the "Homeopathic Medical Library," the work of Jahr is not only a gross perversion of fact, but the English version "is extremely imperfect," "and also a perversion of the original," consequently say they, "it will be easy to perceive that our literature for practical use, is in our own language, alarmingly on the decline," and "it is high time to have a careful translation from the fountain-head, to guard the practitioner against the errors of authors, who may be more influenced in their labours by sordid considerations than by a love of Homeopathy."

Connected with the Homeopathic *Materia Medica*, the Editors give the following curious information:

"It may be well also to advert to the fact, that some cunning wags, surcharged with pathological lore have indulged their hostility to the science, in the fabrication of the pathogenesis of some new and probably useless remedies, and have unaccountably succeeded in imposing on the credulity of those who have been in a measure regarded as the sentinels of our system, and thereby obtained their publication to the world, connected with authentic literature. These, however, are counterfeits; easily detected by those acquainted with the general character of a genuine pathogenesis, and furnish us a wholesome precept to regard with suspicion what does not emanate from an authentic source. Those in possession of JAHR's former edition, may notice *alkerkengi* and several other remedies as examples of this fatal and disgraceful imposition."

These remarks upon the work of Jahr are important, because it has been very extensively relied upon by Homeopathic Doctors, and if the author could be so far hoaxed, as to describe as a medicine what existed only in the brains of "cunning wags," his powers of reasoning and observation are questionable, as well as his honesty, which is very obliquely spoken of by our Editors.

Although Homeopathic literature in the English language is made up of perversions and imperfections, our Editors admit there is something better in the old school. They declare that,

"Pathology cannot be better studied than in the ample and learned works of the old school; where the intelligent practitioner despises the learned lumber of his profession as much as we do, and when at the bed-side, is plain and intelligible. The only thing the Homeopathic student has to avoid in their works, is that part of the story, which is generally very short, and, according to the orthodox school, is easily told, which informs us what is to accomplish the great work of curing the disease. The rest is all in a state of great refinement, and belongs as much to the education of the intelligent practitioner of specific medicine, as of the pertinacious stickler for constitutional principles; which, in their application, are no less at variance with the integrity of the constitution of the human body, than are some principles prescribed by high operative political physicians with that of the Constitution of our country; both are too much on the *taxing* principle."

For the surprising effects of medicine and its economical use, we must look to Homeopathic writers, of whose credibility, it is presumed, there can be no doubt; and to sustain this presumption, we quote from the specimen of the "Homeopathic Medical Library" a part of the account given of Aconite by the great Hahnemann:

"Every time that Aconite is chosen as a Homeopathic remedy, it is especially necessary to regard the moral symptoms, and be careful that they resemble those which belong to it.

Aconite is indispensable for females who suffer from fear or contrarieties during the catamenia; for without this precious calmer, it happens indeed too often, that they suffer even a sudden arrest from such moral shocks. In such cases it will be sufficient to direct a single inspiration, and for an instant, from a bottle containing a globule of the size of a mustard seed, which has been impregnated with the thirtieth dilution; and this will preserve its virtue some years without any loss, provided the bottle is always well closed."

If this statement can be incontestably proved, there is no doubt but Homeopathy would entirely supercede Allopathy; medical schools would be closed, and all we should require to be able to treat disease would be to read the Homeopathic Medical Library.

How long will people delight in being deceived and cajoled by shameless charlatany. There is nothing in astrology or palmistry more unworthy of sober consideration than this same subject of Homeopathy; and the only inducement to notice such trash is to discharge a duty towards the credulous and "uninitiated reader." It is among the duties of public Journalists to correct errors, and point out falsehood, and denounce it to the best of their power. And we cannot better close these remarks than by declaring our opinion that practitioners have made money and obtained notoriety by Homeopathy, not because there is any truth in Homeopathy, but because of the gullibility of the people. If its being in fashion proved its truth, we have a right to claim the same truth for Perkin's Metallic Tractors, for the efficacy of amulets and charms, and even for Astrology.

#### INFLUENCE OF CLIMATE ON PULMONARY CONSUMPTION.

M. Casimir Broussais read a short paper on this interesting subject. The author's conclusions are founded on the sanitary reports addressed by the surgeons attached to the forces in all parts of France and Africa to the military board of health. From the African reports it would appear, that of 50,341 patients who were carefully examined, only 62 labored under phthisis, giving a ratio of 1 to 650; and only 1 death from phthisis to 102 from all other diseases. Now, the ordinary mortality of the French army from phthisis is 1 to every 5 deaths from other diseases, as has been shown by the researches of M. Bensiston de Châteauneuf.

This difference is so great, and has been deduced from so large a number of cases, that if it should be shown to be constant, the beneficial effects of the African climate in cases of phthisis may be considered as proven. M. Broussais does not conceal the objections which may be offered to any conclusions drawn from his facts. The principal are contained in the following questions:—Are the African troops, which furnish a mortality from phthisis of 1 in 102, of the same class as those which in France give a mortality of 1 in 5? Are they not selected troops, stronger, &c.? Finally, is not the mortality from phthisis replaced by some other which cuts off those whom phthisis would have attacked at a subsequent period had they survived.

M. Broussais examines and discusses these objections in succession, and concludes,—

1. That no statistical documents prove the frequency of phthisis in India.
2. That the mortality from phthisis amongst the English soldiers in the West Indies is small, and one-fourth less amongst Europeans than black or colored people.
3. It has not been proved that pulmonary consumption is frequent in Martinique, Senegal, Cayenne, or Italy; on the contrary, the imperfect statistics which we possess seem to show the contrary.—*Trans. Acad. Med. of Paris, from Prov. Med. Journ.* April 15.

## RETROSPECT OF THE MEDICAL SCIENCES.

## ON THE SPECIAL FUNCTION OF THE SKIN.

BY R. WILLIS, M. D.

The purpose which is answered in the animal economy by the function of the skin has not been precisely indicated by physiologists. It is universally acknowledged of immense importance to the health; but no one has said how or wherefore it is so. The chemical analysis of the sweat is acknowledged to throw no light on the ends for which it exists; and the principal matter excreted from the skin is water: sweat contains about 99 per cent. of this fluid. The author of this paper considers the water as the essential excretion; not, however, in the usual sense in which the word excretion is used, nor yet as a means of regulating or reducing temperature. In the means which nature takes to preserve the lower animals from the effects of loss of heat by sending them into the world ready clothed, and in the uniformity with which man contrives to clothe himself over so large a portion of the earth's surface, he sees that the object is generally to economise heat, not to dissipate it. He says there is even something like an absurdity involved in the invocation of a system to cool the body, seeing that one great business of life, in all the temperate and cold countries of the world, is to guard against the loss of heat. Heat is lost, indeed, to a great extent, in converting the product of the sudoriparous glands into vapour; but the loss here was unavoidable; it is not the end. In spite of all the sudoriparous glands can do, also, the experiments of Delaroche and Berger have shown that the heat of the body rises considerably above the standard when exposed to temperatures somewhat higher than itself. In chambers heated to 120° and 130° Fahr., the temperature of animals rises, within an hour, to from 11° to 16° above what it had been before, and life is destroyed. And then the suppression of the cutaneous exhalation is by no means followed by a rise in the temperature of the body. In general dropsies, which are attended with a remarkable diminution of this secretion, an icy coldness usually pervades both the body and the limbs. A great fall in the animal temperature was likewise found by Fourcault and Becquerel and Breschet to be the effect of covering the body with a varnish impervious to perspiration; and so serious was the general disturbance of the functions in these circumstances, that death sometimes ensued in the course of from three to four hours. Delaroche and Berger had also found that confinement in an atmosphere of no higher temperature than the body of an animal, but saturated with moisture, was rapidly fatal; animals scarcely resisted such an atmosphere for an hour before they were reduced to extremity. Whatever prevents the skin from performing its function, *i. e.* from throwing off a little water, is very speedily fatal.

How may this effect be produced? How does it happen that health and even life can be so immediately dependent, as they certainly are, on the elimination of some thirty-three ounces from the general surface of the body in the course of the twenty-four hours? To this the author answers,—by securing the conditions which are necessary for the endosmotic transference between arteries and veins of the fluids that minister to nutrition and vital endowment.

It is admitted by physiologists that the blood, while still contained within its conducting channels, is inert with reference to the body, no particle of which it can either nourish or vivify until that por-

tion of it which has been denominated the *plasma* has transuded from the vessels, and come into immediate contact with the particle that is to be nourished and vivified: but no physiologist has yet pointed out the efficient cause of these tendencies of the plasma, first, to transude through the wall of its efferent vessels, and secondly, to find its way back again into the afferent conduits. The explanation given by the author is, that in consequence of the out-going current of blood circulating over the entire superficies of the body, perpetually losing a quantity of water by the action of the sudoriparous glands, the blood in the returning channels has thereby become more dense and inspissated, and is brought into the condition for absorbing, by endosmosis, the fluid perpetually exuding from the arteries, which are constantly kept on the stretch by the injecting force of the heart.

Repeated experiment has demonstrated the fact that the blood in the veins is of somewhat greater density than that in the arteries. If the specific gravity of arterial blood be allowed to be 1,050, that of venous blood in the mean will be 1,503.

In an appendix to the paper, the author points out a few of the practical applications of which the above-mentioned theory is susceptible. Interference with the function of the skin, and principally through the agency of cold, he observes, is the admitted cause of the greater number of acute diseases to which mankind, in the temperate regions of the globe, are subject. He who is said to have suffered a chill, has, in fact, suffered a derangement or suppression of the secreting action of his skin, a process which is altogether indispensable to the continuance of life; and a disturbance of the general health follows as a necessary consequence. Animals exposed to the continued action of a hot, dry atmosphere die from exhaustion; but when subjected to the effects of a moist atmosphere of a temperature not higher than their own, they perish by the same cause as those which die from covering the body with an impervious glaze; for, in both cases, the condition required for the access of oxidized, and the removal of deoxidized plasma, are wanting, and life necessarily ceases. The atmosphere of unhealthy tropical climates differs but little from the vapour-bath at a temperature of between 80° and 90° Fahr.; and the dew point in those countries, as, for example, on the western coast of Africa, never ranges lower than three or four degrees, nay, is sometimes only a single degree, below the temperature of the air. Placed in an atmosphere so nearly saturated with water, and of such a temperature, man is on the verge of conditions that are incompatible with his existence: conditions which may easily be induced by exposure to fatigue, to the burning sun, or other causes which excite the skin while the circumstances necessary to the exercise of its natural function are wanting. The terms *Miasma* and *Malaria* may, according to the author, be regarded as almost synonymous with air at the temperature of from 75° to 85° Fahr., and nearly saturated with moisture.

The secretion of the skin otherwise suppressed is attended with no less fatal consequences. What kills a patient within the first 48 hours of a bad attack of scarlet fever? The autopsy shows nothing amiss. He dies undoubtedly from the complete suppression of the function of the skin. Restore this, and he will do well; all the stimulants in the world will not

rouse him if the function of his skin be not restored.  
—*Proceedings of the Royal Society, March 2d and 9th, from London Medical Gazette.*

#### PHYSIOLOGY AND PATHOLOGY OF THE BLOOD.

[The following is taken from an excellent paper by Dr. Rees, contained in the last number of "Guy's Hospital Reports."]

The coloring matter of the blood and its true relation to the corpuscle is a point which has hitherto been but little understood, and on this subject Dr. Rees first treats. He observes, "Much confusion has arisen from the terms red particle, red globule, and red corpuscle being regarded as synonymous with hæmotosine or coloring matter, the latter expression meaning, in its correct signification, nothing more than one of the constituents of the red corpuscles; there being a white matter also present in those bodies, which chemists have only noticed within the last few years, and have never yet ventured to define more particularly than as the white matter of the corpuscles." By a series of microscopic experiments, Dr. R. has demonstrated that the red corpuscles are closed sacs containing a fluid within them, which fluid is itself of a red color, the investing sac being white—a fact which he arrived at by bursting the blood corpuscles by the addition of water, and then separating the contents of the corpuscles from the containing membrane. The membranes of the blood corpuscles, notwithstanding their extreme tenuity, possess the property of admitting the passage of fluids by endosmosis—a fact which is established by submitting the corpuscles to the action of fluids of higher and lower specific gravity, by which the flaccidity or distension of the globules was produced.

With regard to the condition of the iron, and its true position in the organization of the corpuscle, Dr. R. has shown, by an extension of the experiment before alluded to, that the iron is contained in the red coloring fluid, and not in any other of the constituent parts of the corpuscle. From the clear solution obtained after the bursting of the corpuscle by the addition of distilled water, a dry mass was by evaporation procured, by incinerating which it was found to contain the whole of the iron of the corpuscles, whilst no iron is contained in the sacs or cases of the latter, or in their nuclei. In alluding to the nature of the smaller corpuscles, which are constantly found floating with those of larger size, and which by many microscopists have been supposed to be immature corpuscles, the author observes, "It must be a necessary part of the process by which these small corpuscles arrive at maturity, that iron enters within the envelope, to supply one of the constituents of the red coloring matter; and to ensure this effect two conditions are required. Firstly, a liquor containing iron in solution must be applied to the membrane of the corpuscle; and, secondly, that this liquor must be of a specific gravity less than that contained in the corpuscle, or it will not enter it in quantity. Both these required conditions are to be found as physico-chemical characteristics of the mixture of chyle and lymph which enters the blood by the thoracic duct, to which fluid all experimenters have given a lower specific gravity than the liquor sanguinis. Thus the specific gravity of the contents of the thoracic duct in the human subject, which I lately analysed, was 1024, while that of the liquor sanguinis may be given at 1052 at the least. From other experiments on the cat, dog, and the ass, I am satisfied of the general truth of this statement. The iron which exists in the

chyle is not contained in the crassamentum which forms by coagulation; but we find it, on the contrary, as a constituent of the serum in a perfect state of solution, so that it may enter with facility through the membranes of the corpuscles; so perfect, indeed, is this solution, that, even after evaporating the chyle to dryness, we are enabled to extract the iron from the albuminous matters by digestion in water. It exists, in fact, dissolved in that constituent of the chyle which is called the aqueous extractive, and most probably in the form of lactate. Nature has then in this admirable manner provided for the introduction of iron into the corpuscle, by presenting it in a perfectly soluble form to the enveloping membrane, and dissolved in a liquor of a specific gravity suited to effect the necessary endosmotic actions."

The author next proceeds to point out certain pathological phenomena which may be expected to result when the due balance and arrangement of the physical properties of the fluids become destroyed. He regards the healthy condition of the membrane of the blood corpuscles, by which transmission of liquors and gases may take place, as being of the same importance to the maintenance of life as is the previous condition of the respiratory tubes, and that life would be equally destroyed by the loss of those special properties in the former as by the closure of the latter. "Let the blood become destroyed, so that its specific gravity is lessened, and we may feel assured that if the physical qualities, more especially the specific gravity of the chyle, be not simultaneously affected, and that, too, in a due proportion, the result must be that the red coloring matter, the great oxygenator of the blood, is no longer produced in its ordinary quantity—the ferruginous serum of the chyle not being able to enter the blood corpuscle as in health. If the degeneration above alluded to take place, we must recollect that all the solids of the body through which the blood courses are formed with pores and of materials admitting of endosmotic action; and that it is impossible for the solid constituents to preserve their health if constantly acted upon by the blood at a specific gravity of 1030 to 1036, instead of 1052 to 1057—the equilibrium of health being no longer preserved, and the watery blood inducing a like condition in the other solids."

The author expresses his desire to direct the attention of the profession to the study of endosmosis as applied to pathology, and his belief that many of the phenomena of Bright's disease are attributable to the condition of blood noticed in his essay.

#### ANEMIA OF THE BRAIN INDUCED BY FATAL HÆMORRHAGE.

BY GEORGE BURROWS, M. D.

It may appear surprising that Dr. Kellie has been so often quoted as asserting the brain cannot be depleted by blood letting; when we find him stating, his experiments satisfactorily proved that these brains had really been depleted by bleeding, and their vessels drained of a very sensible proportion of the blood usually contained in them. But in opposition to the conclusions drawn from these experiments, we find, in a subsequent communication to the Médico-Chirurgical Society of Edinburgh, Dr. Kellie affirming "that, in the ordinary state of the parts, we cannot lessen, to any considerable extent, the quantity of blood within the cranium by arteriotomy or venesection;" whereas, if the skull of an animal be trephined, then hæmorrhage will leave very little blood in the brain.

This apparent contradiction between the results of experiments and subsequent statements induced me to repeat the experiment of bleeding animals to death, and comparing the state of the cerebral blood-vessels in them and in animals which had died from other causes.

In justice to myself I wish to state that, if I could have found any series of experiments, performed by others, which corroborated or invalidated the opinions of Drs. Abercrombie and Kellie, I should have refrained from the needless repetition of similar experiments on living animals. I have, however, up to the present time, fruitlessly searched for any additional information on this interesting point in physiology, a point which has such direct bearings on practical medicine. I had anticipated finding in Dr. Marshall Hall's work "On the Effects of Loss of Blood," the desired information; but it does not appear that, at the time of the publication of that volume, the author had made any examination into the state of the blood-vessels of the brain after hæmorrhage; for he remarks "that we are altogether in want of a series of observations on the effects of loss of blood on the internal organs." Thus disappointed in my search for information on this subject, I determined to resort to fresh experiments.

On the 11th of January, 1843, I killed two well-grown rabbits. The one (A) by opening the jugular vein and carotid artery on one side of the throat; the other (B) was strangled. Each animal died violently convulsed. A ligature was drawn tightly round the throat of the rabbit (A) immediately it expired, to prevent any further escape of blood from the vessels of the head. The rabbits were allowed to remain twenty-four hours on a table resting on their sides.

While the blood was flowing from the rabbit (A), the conjunctiva was observed to become pallid, and the eyeballs to shrink within the sockets. Upon the examination of the head of this rabbit, the integuments and muscles appeared blanched and exsanguined. Upon removing the upper portions of the cranium, the membranes of the brain were found pallid, and scarcely the trace of a blood-vessel was to be detected on the surface of the brain. The longitudinal and lateral sinuses were nearly empty of blood, and their course was not denoted by any colour of blood. Upon making sections of the brain, the interior appeared equally exsanguined.

Soon after the cord was drawn tight around the throat of the rabbit (B), the conjunctiva became congested, the eyeballs turgid, prominent, and even projecting beyond the margin of their sockets. The integuments and muscles of the head were found full of blood. Upon opening the cranium, the superficial vessels of the membranes, as well as the sinuses, were full of dark liquid blood. The whole substance of this brain, and its membranes, appeared of a dark reddish hue, as if stained by extravasated blood.

The contrast between the two brains in point of vascularity, both on the surface and the interior, was most striking. In the one scarcely the trace of a blood-vessel was to be seen; in the other every vessel was turgid with blood. It seems hardly necessary to bring forward further evidence to prove that death by hæmorrhage has a most decided effect in depleting the vessels, and reducing the quantity of blood within as well as upon the outside of the cranium.

I have, however, repeated the experiments with similar results. In fairness to Dr. Kellie I should state, that I have attended at the slaughtering of

sheep by butchers, and find the brains of those animals much less depleted than the brains of rabbits which have died by hæmorrhage. But these sheep did not die from simple loss of blood; but partly from division of the pneumogastric nerves, and cervical portion of the spinal cord. These lesions, no doubt, influenced the appearances.

Hence it is not a fallacy, as some suppose, that bleeding diminishes the actual quantity of blood in the cerebral vessels. By abstraction of blood we not only diminish the momentum of blood in the cerebral arteries, and the quantity supplied to the brain in a given time, but we actually diminish the quantity of blood in those vessels. Whether the vacated space is replaced by serum, or resiliency of the cerebral substance under diminished pressure, is another question, into which I do not now enter.

2dly.—Dr. Kellie, assuming the cranium to be a perfect sphere, proceeds to show that the quantity of blood in the cerebral vessels is not affected by posture.

"I think," writes Dr. K. "it quite certain, at least in a previously sound and healthy condition of the brain and its vessels, no change of posture can impel into, or confine more or less blood within those vessels than naturally belongs to them; though I am willing to allow that the general pressure of the circulating fluid may in this way be, under certain circumstances, increased or diminished, and the circulation through the head accelerated, retarded, or disturbed."

In order to ascertain, as far as such an experiment can do, the total effect of the gravitation of the blood upon the vessels of the brain, Dr. K., immediately after administering a destructive dose of prussic acid to two dogs, suspended the one by the heels, and the other by the ears. He allowed them to remain thus suspended for 18 hours, when they were taken down for examination.

The effects of posture on the parts exterior to the skull Dr. K. reports to be very great. In the former animal the integuments and their vessels were filled and congested to the greatest possible degree; the integuments of the head of the second dog were pale, and the vessels empty. "Within the head," continues Dr. K., "the contrast was but trifling. The sinuses beyond all doubt were loaded in the first case, and rather empty in the other; the difference of appearance in other parts of the brain was but little striking." Dr. Kellie's own words, as to the condition of the sinuses in the two animals, assured me that posture had a much greater effect on vascular congestion of the brain than he was willing to admit. I therefore repeated his experiment.

On the 28th of December, 1842, two full-grown rabbits were killed by prussic acid, and, while their hearts were still pulsating, the one (C) was suspended by the ears, the other (D) by the hind legs. They were left suspended for 24 hours; and, before they were taken down for examination, a tight ligature was placed round the throat of each rabbit, to prevent, as effectually as was possible, any further flow of blood to or from the head, after they were removed from their respective positions.

In the rabbit (C) the whole of the external parts of the head, the ears, the eye-balls, &c. were pallid and flaccid; the muscles of the scalp and bones of the cranium were also remarkably sanguined. Upon opening the cranium, the membranes and substance of the brain were pallid, the sinuses and other vessels were exsanguined; anæmic beyond my expectation.

In the rabbit (D) the external parts of the head,

the ears, eye-balls, &c. were turgid, lived, and congested. The muscles and bones of the cranium were of a dark hue, and gorged with blood, which at some parts appeared extravasated. Upon opening the cranium, the membranes and vessels were dark and turgid with liquid blood; the superficial veins were prominent, the longitudinal and lateral sinuses were gorged with dark blood, and there was staining of the tissues, if not extravasation of blood into the membranes. The substance of the brain was uniformly dark, and congested to a remarkable extent.

Dr. Kellie asserts, but I think his experiments do not support him, that the contrast in the appearances within the heads of the two animals was but trifling. In my analogous experiments the contrast was most striking. In the one was to be seen a most complete state of anæmia of the internal as well as external parts of the cranium; in the other a most intense hyperæmia or congestion of the same parts; and these opposite conditions in the vascularity of the brain induced solely by posture, and the consequent gravitation of the blood.

If the cranium were the perfect sphere, as taught by Monro, and as subsequently maintained by Abercrombie and other distinguished writers on the pathology of the brain, these effects on its circulation (which I have now exhibited) ought not to have resulted from the force of gravity on the blood in the cerebral vessels.

From the foregoing experiments it would appear, that the principle of the subsidence of fluids after death operates on the parts contained within the cranium, as well as upon those situated in the thorax or abdomen.—*Lond. Med. Gaz.* April 28.

#### STRUMOUS PERITONITIS.

The March number of the "Dublin Journal of Medical Science" contains communications from Sir Henry Marsh and Dr. Fleetwood Churchill, on a form of peritonitis occurring in persons of a strumous diathesis, to which the above title has been given. Strumous inflammation of the peritoneum with effusion may present itself either as an acute or chronic disease; the latter, which is the more frequent form, may be an evident consequence of the former, or it may occur without our being able to recognise any preceding acute stage, coming on so gradually, in fact, that the nature of the complaint may not be discovered until it is fully developed. As M. Duges observes, "there may be occasional pains, colics, irregular attacks of diarrhœa, emaciation, paleness, for weeks or even months before the disease is established, while from the earlier and more prominent symptoms being referable to the mucous membrane of the intestinal canal, the real affection may be overlooked, and the fatal results attributed to the diarrhœa."

Bad diet, cold, privations, excesses, dentition, constipation, &c. have been mentioned as exciting causes of this variety of peritonitis; but the principal one, in Dr. Churchill's opinion, is an extension of irritation from the intestinal mucous membrane. It also occurs as one of the sequelæ of febrile diseases, such as scarlatina, measles, &c. Sir H. Marsh observes, that it frequently arises without the intervention of any well marked exciting cause, and sometimes sets in either gradually or abruptly, during the progress of some other disease. The age most obnoxious to its supervention is between early childhood and puberty, and for a few years after that

period; it is rarely met with in infancy or after the age of thirty. It is almost confined to children of a strumous habit and lymphatic temperament; and is frequently complicated with, and is perhaps a consequence of, mesenteric disease.

The symptoms of the acute form are, wandering pains in the abdomen, increased on pressure, and gradually becoming more severe, with hot and dry skin, scanty, high-colored urine, small and very frequent pulse, and extreme distress and anxiety, rapidly followed by effusion into the cavity of the peritoneum. In the chronic variety the mode of invasion varies widely; in one class of cases the patient labours under diarrhœa for a considerable time with or without pain; the appetite is pretty good, the temperature natural, and the pulse quiet; but at length—it may be for weeks or months—complaints are made of a sensation of pricking, or of paroxysms of pain and a feeling of tightness in the abdomen, which, upon examination, is found to be more or less swollen. In other cases there is a certain amount of pain from the beginning, occurring in paroxysms with perfect intervals, and though at first limited to one part of the abdomen, yet by degrees spreading over and occupying the whole; or again, there may not be any complaint of pain, merely a feeling of distension, with variable appetite, irregular bowels, and progressive emaciation. In many cases, indeed, the early symptoms are so slight that no attention is paid to them until the emaciated appearance of the patient excites alarm. The abdomen, on examination, is probably found tumid, and in some degree tender in parts. Dr. Gregory states that tenderness on pressure is probably felt from the commencement. As the disease advances, the patient complains of pain occurring in paroxysms, beginning in some one part of the abdomen, and gradually spreading over the entire, and increasing in frequency and in severity according to the duration of the disease. This state is accompanied by a certain amount of tenderness on pressure, and more or less uneasiness in walking or even standing erect. This is followed by a feeling of distension and enlargement of the abdomen, with fluctuation more or less evident on careful percussion. The enlargement of the abdomen is not always equable; in some cases, especially in the commencement, the umbilical region protrudes. As the effusion increases, the entire abdomen enlarges, loses its softness, and becomes tense and hard, though occasionally unequally so, and its integuments hot and dry. In some rare cases the intestinal canal preserves its integrity for a long time; the tongue is pretty clean, the appetite much as usual, the bowels regular, or perhaps rather constipated; but in the large majority of cases we find the tongue white, loaded, and flabby; more or less thirst; the appetite irregular and fastidious, sometimes increased, more frequently impaired or lost altogether; the bowels relaxed or constipated, perhaps alternately; the stools fetid, and of whitey-brown or bluish color. The quantity passed sometimes in the twenty-four hours, without the aid of medicine, is enormous. Dyspnœa may be induced either by the quantity of the abdominal effusion or by accompanying hydrothorax; the pulse is increased in frequency, but diminished in strength and fulness; the urine is scanty, the skin hot, and there are distinct evening exacerbations of a fever of the hectic character. It is hardly necessary to add that so formidable and long-continued a disease is attended with great emaciation and exhaustion. As it progresses, the local symptoms are aggravated; the quick pulse and fever, with exacerbations, more remarkable; the

weakness and incapability of exertion more extensive; the patient, in short, is utterly worn out.

The course of the disease is generally very long; it may terminate, first in resolution, secondly, in a circumscribed collection of the effused fluid and its final evacuation with more or less subsidence of the original affection, and, thirdly, in death. The majority of the cases terminate fatally at different intervals from the commencement of the attack. Instead of diminishing, the symptoms progressively increase in intensity. The abdomen becomes very tense and tender, the fever high, the pulse very quick and feeble, the thirst considerable, the diarrhoea persistent, the exacerbations severe, the emaciation and exhaustion extreme. The countenance becomes sunken, the extremities cold, the surface covered with a clammy sweat, and occasionally dotted with petechiæ, and at length, after a prolonged period of suffering, death closes the scene. The appearances presented after death are, more or less effusion into the peritoneal cavity, with shreds of lymph floating therein. The intestines are agglutinated together, and sometimes to the peritoneum, which membrane is occasionally thickened and partially injected, and sometimes studded with miliary tubercles, or has tubercular matter deposited on it. The mesenteric glands may be healthy, or they may be enlarged, and contain tubercular matter. In two of Sir H. Marsh's cases there were collections of a thin pus mixed with curdy matter, one of these in one case communicating with the bowel by an ulcerated perforation, and containing a dark-brown fluid, having a very evident feculent odour. Dr. Gregory observes that the mucous membrane of the bowels, particularly of the small intestines, appears ulcerated in various places, and at these points of ulceration the convolutions of the intestines communicate, so that instead of forming one line of canal, as they will continue to do even in advanced stages of chronic peritonitis, they constitute a mass of tubes communicating freely with each other, and with the thickened and ulcerated peritoneal membrane by innumerable openings.

The prognosis in the majority of cases is unfavorable. Where the peritoneum alone is affected, the patient has certainly a chance of recovery; but if the mesenteric glands, or the mucous membrane of the intestines or pleura be involved, the case will probably terminate unfavorably.

The treatment should consist in the application of leeches to the abdomen, when admissible, poppy fomentations, the use of the warm bath, and the employment of mercury so as to effect the gums. It may be exhibited internally or by inunction; in many cases the latter is preferable, as, when diarrhoea occurs, the bowels are too irritable. A scruple of mercurial ointment should be gently rubbed in over the abdomen, thighs, legs, back, &c., until the gums are touched. Flying blisters to the abdomen are also useful. The diet must be bland and unstimulating.

*Prov. Med. Journ.*

#### MENINGEAL APOPLEXY.

At the Academy of Medicine, Paris, April 4, 1843, M. Prus read a memoir on this subject, of which the following is the substance:—The author distinguishes this form of apoplexy into two species, viz., sub-arachnoid and intra-arachnoid, and points out the differences between them.

In sub-arachnoid hæmorrhage the blood is frequently derived from a ruptured artery or vein; in

twenty-four cases related by the author, this occurred fifteen times, and the rupture of the vessel may have existed in the remaining nine cases. In intra-arachnoid hæmorrhage the effusion of blood always arises from exhalation of that fluid. In the former species the blood is mixed with the cerebro-spinal fluid, and has a constant tendency to pass into the ventricles and vertebral canal; in the latter species the effused blood is generally limited. In sub-arachnoid apoplexy we never find any trace of false membranes; but in intra-arachnoid we always have a false membrane enveloping the clot about the fourth or fifth day.

*Symptoms.*—Muscular paralysis rarely accompanies sub-arachnoid hæmorrhage; it was met with only thrice in twenty-four cases. On the other hand, in eight cases of intra-arachnoid apoplexy, muscular paralysis occurred six times. Loss of sensation, when it does exist, which is very rare, is but slight in both species.

Deviation of the mouth is peculiar to meningeal hæmorrhage. Somnolence and coma almost constantly exist in both. In sub-arachnoid hæmorrhage we have no delirium, fever, or peculiar dryness of the tongue, which belong to the arachnitis which comes on, about the fourth or fifth day, in cases of intra-arachnoid hæmorrhage.

*Termination.*—Sub-arachnoid hæmorrhage was constantly fatal within eight days. In cases of intra-arachnoid apoplexy the patients sometimes lived for thirty days or more; and in some cases a cure is obtained, the blood being absorbed by the enveloping cyst. M. Prus cites an example of this mode of recovery.

*Treatment.*—In sub-arachnoid hæmorrhage the treatment should be directed towards moderating or arresting the effusion of blood, and palliating the effects of pressure. In intra-arachnoid hæmorrhage there are other and important indications to be fulfilled. The formation of the false membrane, which envelopes and may absorb the clot, is not to be interfered with too far, while the effects of arachnitis must be checked.

*Ibid.*

#### ILLEGAL PRACTICE OF MEDICINE IN PARIS.

Some months ago a trial took place before the Tribunal of Correctional Police in Paris, which abundantly shows the jealousy with which the authorities view persons practising medicine in the French metropolis without having previously procured the necessary certificates of competency.

The case was that of a lady in Paris who had been so severely bitten by a dog as to be upwards of a month confined to her bed, and in great suffering, in consequence of which she brought an action against the owner of the dog, and recovered 500 francs damages. The defendant, however, appealed against the verdict on the plea that the original injury had been greatly aggravated by the bad treatment of the medical man whom the lady called in, and proved by a physician's evidence that the remedies used were calculated to irritate instead of allaying the painful symptoms. By these means he succeeded in materially lowering the amount of damages claimed by the lady; and at the same time the Tribunal having decided that the medical man (who was a recognized *officier de santé* for the dep. Saône et Loire) had acted illegally in practising his profession in Paris without special licence for the same, issued an order for his prosecution.—*Lond. Lancet*. April 15, 1843.